

Amendment Under 37 C.F.R. § 1.111
U.S. Patent Application Serial No. 10/046,710
Our Ref: Q68136

REMARKS

Claims 1-9 were all the claims pending in the application as of the Office Action mailed July 18, 2002. Claims 1 and 5 are independent claims.

Applicants add new claims 10 and 11, which depend from claims 1 and 5, respectively. Applicants add the recitation that “the waterproof seal member is arranged in the annular shape within the wire connection portion” to claims 4 and 8 and delete “elastic” from these claims. As such, claims 1-11 are all of the pending claims.

Drawings

The Examiner objects to the drawings because Figs. 11A and 11B should be designated by a --Prior Art-- legend. Applicants hereby submit Formal Drawings with Figures 11A and 11B designated as --Prior Art--.

Claim Objections

The Examiner objects to claims 4 and 8 because of the use of the word “elastic”. Applicants delete “elastic” from claims 4 and 8 and note that the scope of these claims is broadened and not narrowed by this Amendment.

Claim Rejections on Prior Art Grounds:

The Examiner rejects claims 1, 2, 5, and 6 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 3,143,595 to Martin (“Martin”) in view of U.S. 6,261,137 to Wilcox (“Wilcox”); claims 3, 4, 7, and 8 under 35 U.S.C. § 103(a) as being unpatentable over Martin in

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view of Wilcox and further in view of U.S. 4,830,408 to Reimert (“Reimert”); and claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Wilcox, and further in view of U.S. 3,934,333 to Churchill (“Churchill”). Applicants respectfully traverse these rejections in view of the following remarks.

Claims 1, 2, 5, and 6

With respect to independent claims 1 and 5, the Examiner admits that Martin does not specifically disclose that the “wire connection portion is pressed radially uniformly over an entire periphery thereof.” The Examiner therefore looks to Wilcox to allegedly teach this feature. Applicants submit that this position is incorrect for a couple of reasons.

The Examiner is misconstruing and/or misapplying the teachings of Wilcox. Wilcox shows a conductor connection system in which the conductors 200, 205 within the connector 100 are crimped by using a splicing tool to compress upper region 125 and lower region 130 together (see col. 3, lines 34-49 and Figs. 3-5). There is however, no teaching or suggestion that the connector 100 is pressed radially uniformly over entire periphery of the connector.

In fact, the crimping force is not applied radially uniformly, or with a uniform force toward the center of the wire, since the upper region 125 and the lower region 130 of the connector 100 are the compressed portions of the connector, while the middle regions 135 are not themselves compressed radially inwardly. These middle regions 135 are instead merely flattened by the compression of regions 125 and 130. A connector, if it were to use this type of peripheral compression, would not provide the claimed intimate contact between “the conductor

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portion and the insulating sheath" and "the inner peripheral surface of the wire connection portion".

Therefore, Applicants request that the Examiner withdraw the rejection of independent claims 1 and 5.

In addition, with respect to claims 2 and 6, Applicants request that the Examiner withdraw the rejection at least because of the claims' dependency from claim 1 or claim 5.

Claims 3, 4, 7, and 8

With respect to claims 3, 4, 7, and 8, Applicants request that the Examiner withdraw the rejection at least because of the claims' dependency from claim 1 or claim 5 and because Reimert does not cure the deficiency in Wilcox discussed above.

Claim 9

With respect to claim 9, Applicants request that the Examiner withdraw the rejection at least because of the claim's dependency from claim 5 and because Churchill does not cure the deficiency in Wilcox discussed above.

New Claims:

Applicants also add new claims 10 and 11. These claims depend from independent claims 1 and 5, respectively, and add the recitation that "the wire connection portion is pressed radially uniformly over an entire length thereof", in addition to being pressed radially over the entire periphery. There is no teaching or suggestion in any of the cited prior art references of this type of structure or method. Therefore, Applicants request that the Examiner find these claims

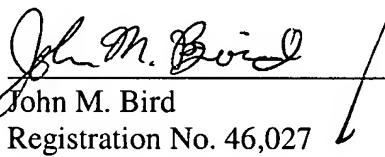
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allowable for the reason discussed above and due to their dependency from claims 1 and 5,
respectively.

In view of the above, reconsideration and allowance of this application are now believed
to be in order, and such actions are hereby solicited. If any points remain in issue which the
Examiner feels may be best resolved through a personal or telephone interview, the Examiner is
kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue
Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any
overpayments to said Deposit Account.

Respectfully submitted,


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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

4. (Amended) The structure according to claim 3, wherein

the waterproof seal member is arranged in the annular shape within the wire connection portion,

the wire connection portion includes a peripheral groove for receiving the elastic waterproof seal member, and

the waterproof seal member is compressed in the peripheral groove.

8. (Amended) The method according to claim 7, wherein the waterproof seal member is arranged in the annular shape within the wire connection portion, the pressing step is performed under a state in which a peripheral groove for receiving the elastic waterproof seal member is formed in an inner surface of the wire connection portion, and the waterproof seal member is mounted in the peripheral groove.

Claims 10 and 11 are added as new claims.